Längenmaße

	Meter	Inch	Foot	Yard
1 m	1	39,37	3,2808	1,0936
1 in	0,0254	1	0,0833	0,0278
1 ft	0,3048	12	1	0,033
1 yd	0,9144	36	3	1

1 m = 10^{-3} km = 10 dm = 10^{2} cm = 10^{3} mm = 10^{6} µm = 10^{12} nm

Gewichte

	Kilogramm	Pound	Tons	
			Short (US)	Long (Imp)
1 kg	1	2,205	$1,102.10^{-3}$	$0,9843.10^{-3}$
1 lb	0,4536	1	$0,500.10^{-3}$	$0,4464.10^{-3}$
1 short ton (US)	907,2	2000	1	0,8929
1 long ton (Imp)	1016	2240	1,12	1

1 kg = 10^{3} g = 10^{2} dkg

Flächenmaße

	cm^2	m^2	Sq.Inch	Sq.Foot	Sq.Yard
1 cm^2	1	1.10^{-4}	0,155	$1,0764.10^{-3}$	$1,196.10^{-4}$
1 m^2	1.10^{4}	1	1550	10,764	1,196
1 sq in	6,4516	$0,64516.10^{-3}$	1	0,00694	$0,772.10^{-3}$
1 sq ft	929,0	0,0929	144	1	0,1111
1 sq yd	8360	0,8360	1296	9	1

1 m^2 = 10^{-6} km = 10^{-4} ha = 10^{2} dm^2 = 10^{6} mm

Dichte

	kg/ltr	kg/m^3	Pound / Cubic Foot	Pound / Gallon	
				Imperial	US
1 kg/ltr	1	1000	62,43	10,022	8,345
1 kg/m^3	0,001	1	0,06243	0,010022	0,008345
1 lb/cu ft	0,01602	16,02	1	0,16054	0,1337
1 lb/gal (Imp)	0,0998	99,78	6,229	1	0,8327
1 lb/gal (US)	0,1198	119,8	7,481	1,201	1

Hohlmaße

	Liter (dm^3)	m^3	Cubic Inch	Cubic Foot	Gallon	
					US	Imperial
1 l	1	1.10^{-3}	61,024	0,03531	0,2642	0,220
1 m^3	1000	1	61024	35,31	264,2	220
1 cu in	$16,387.10^{-3}$	$16,387.10^{-6}$	1	$0,5787.10^{-3}$	$4,329.10^{-3}$	$3,606.10^{-3}$
1 cu ft	28,320	$28,320.10^{-3}$	1728	1	7,481	6,229
1 US gal	3,785	$3,785.10^{-3}$	231	0,1337	1	0,8327
1 Imp gal	4,546	$4,546.10^{-3}$	277,3	0,1605	1,210	1

Imperial = British

Spezifisches Volumen

	l/kg	m^3/kg	Cubic Foot / Pound
1 l/kg	1	0,001	0,01602
1 m^3/kg	1000	1	16,02
1 cu ft/lb	62,43	0,06243	1

Kraft

	Newton	Kilopound	Poundal
1 N	1	0,1020	7,24
1 kp	9,807	1	70,90
1 pdl	0,1383	0,0141	1

1 N = 10^{5} dyn; 1 dyn = 1 g x 1 $\frac{cm}{s^2}$; 1 kg = 1 kg x g
1 Poundal = 1 Pound x g

Druck

	1 bar = $\frac{10^5 N}{m^2}$	1 at = $\frac{1 Kp}{cm^2}$	$\frac{poundal}{sq\ ft}$	$\frac{poundal}{sq\ in}$ = Psi	1 atm = 760 Torr = 760 mm Hg (0°C)	Hg column (0°C)		H_2O column (WC) (4°C)	
						mm Hg = Torr	in Hg	m H_2O	ft H_2O
1 Pa = 1 N/m^2	1.10^{-5}	$1,02.10^{-5}$	0,0209	$1,45.10^{-4}$	$9,87.10^{-6}$	0,0075	$2,95.10^{-4}$	$1,02.10^{-4}$	$3,35.10^{-4}$
1 bar	1	1,0197	2089	14,504	0,9869	750	29,5	10,20	33,5
1 at	0,980665	1	2048	14,22	0,96784	735,56	29,0	10,00	32,8
1 pdl/sq ft	$0,4790.10^{-3}$	$0,4882.10^{-3}$	1	$6,944.10^{-3}$	$0,4725.10^{-3}$	0,359	0,141	$4,88.10^{-3}$	0,0160
1 pdl/sq in = Psi	0,06895	0,07031	144	1	0,06806	51,7	2,04	0,703	2,31
1 atm	1,013	1,033	2120	14,70	1	760	29,09	10,33	33,9
1 mm Hg	$1,330.10^{-3}$	$1,360.10^{-3}$	2,78	0,0193	$1,316.10^{-3}$	1	0,0394	0,0136	0,0446
1 in Hg	0,0339	0,0345	70,7	0,4910	0,0334	25,4	1	0,3450	1,133
1 mH_2O	0,0981	0,1000	205	1,4220	0,0968	73,6	2,90	1	3,28
1 ft H_2O	0,0299	0,0305	62,4	0,4340	0,0295	22,4	0,883	0,3050	1

1 $\frac{N}{m^2}$ = Pa (Pascal) = 10 $\frac{dyn}{cm^2}$

1 $\frac{kp}{m^2}$ = 10^{-4} $\frac{kp}{cm^2}$ = 1 mm WC (bei 4°C)

Arbeit, Energie, Wärme

	1 kcal	1 kp m	Btu (British thermal unit)	ft poundal	1 kWh	Horsepower/hour (PS/h)		ton-day of refrigeration	1 Joule = 1 Nm = Ws
						metrical 75 $\frac{kp\ m\ h}{s}$	imperial 550 $\frac{ft.lb\ h}{s}$		
1 kcal	1	427,0	3,968	3088	$1,163.10^{-3}$	$1,581.10^{-3}$	$1,560.10^{-3}$	$13,779.10^{-6}$	4190
1 kpm	$2,342.10^{-3}$	1	$9,294.10^{-3}$	7,233	$2,723.10^{-6}$	$3,704.10^{-6}$	$3,653.10^{-6}$	$32,270.10^{-6}$	9,807
1 Btu	0,252	107,59	1	778,0	$0,293.10^{-3}$	$0,398.10^{-3}$	$0,3931.10^{-3}$	$3,472.10^{-6}$	1055
1 ft pdl	$0,3238.10^{3}$	0,13826	$1,285.10^{-3}$	1	$0,377.10^{-6}$	$0,512.10^{-6}$	$0,505.10^{-6}$	$4,462.10^{-9}$	1,356
1 kWh	860	$367,1.10^{-3}$	3412,8	$2,655.10^{6}$	1	1,360	1,341	$11,850.10^{-3}$	$2,6.10^{6}$
1 PSh	632,3	270.10^{-3}	2509	$1,953.10^{6}$	0,7353	1	0,9863	$8,713.10^{-3}$	$2,65.10^{6}$
1 hph	641,1	$273,7.10^{-3}$	2545	$1,980.10^{6}$	0,7457	1,014	1	$8,834.10^{-3}$	$2,68.10^{6}$
1 ton-day	$72,57.10^{-3}$	$30,99.10^{-3}$	288.10^{3}	$244,1.10^{6}$	84,39	144,78	113,2	1	304.10^{6}
1 J	$0,239.10^{-3}$	0,102	$0,948.10^{-3}$	0,738	$0,278.10^{-6}$	$0,378.10^{-6}$	$0,372.10^{-6}$	$3,280.10^{-9}$	1

1 erg = 1 dyn cm = 10^{-7} Nm; 1 kJ = 10^{3}J

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Änderungen vorbehalten.

Fassungsvermögen, Energiefluss, Wärmefluss

	1 kcal / h	1 kp m / s	British thermal unit per hour	1 kcal/s = British theor. unit of refrigeration	1 kW = 1 kJ/s	Horsepower/hour (PS/h) metrical 75 kp m / s	Horsepower/hour (PS/h) imperial 550 ft lb / s	US Standard commercial ton of refrigeration	British commercial ton of refrigeration
1 kcal/h	1	0,1186	3,968	$0,278.10^{-3}$	$1,163.10^{-3}$	$1,581.10^{-3}$	$1,560.10^{-3}$	$0,331.10^{-3}$	$0,299.10^{-3}$
1 kp m/s	8,4312	1	33,455	$2,342.10^{-3}$	$9,804.10^{-3}$	$13,333.10^{-3}$	$13,150.10^{-3}$	$2,792.10^{-3}$	$2,520.10^{-3}$
1 Btu/h	0,252	$29,89.10^{-3}$	1	$0,07.10^{-3}$	$0,293.10^{-3}$	$0,398.10^{-3}$	$0,393.10^{-3}$	$0,083.10^{-3}$	$75,310.10^{-3}$
1 kcal/s									
Br u r	3600	427,0	$14,285.10^{-3}$	1	4,186	5,693	5,615	1,190	1,078
1 kW	860,0	102,0	3414	0,2389	1	1,360	1,341	0,2846	0,2572
1 HP	632,3	75	2509,3	0,1756	0,736	1	0,9863	0,2094	0,1891
1 hp	641,2	76,04	2545	0,1781	0,7455	1,014	1	0,2123	0,21227
1 ton	3024	358,2	$12,0.10^{3}$	0,831	3,513	4,776	4,711	1	0,9037
1 Br ton	3340	396,9	$13,26.10^{3}$	0,9277	3,888	5,287	5,214	1,1045	1

Enthalpiedifferenz, spezifische Wärme

Δh	kJ / kg	kcal / kg	Btu / pound
1 kJ/kg	1	0,239	0,43
1 kcal/kg	4,19	1	1,80
1 Btu/lb	2,33	0,556	1

1 cal/g = kcal/kg

Entropiedifferenz, spezifische Wärme

Δs	kJ / kg K	kcal / kg °C	Btu / pound °F
1 kJ/kg K	1	0,239	0,239
1 kcal/kg °C	4,19	1	1
1 Btu/lb °F	4,19	1	1

Berechnungsformeln für Temperaturen

T Celsius = $\frac{5}{9}$ (Tf - 32)

Tc = Temperatur in Celsius

T Fahrenheit = $\frac{9}{5}$ (Tc + 32)

Tf = Temperatur in Fahrenheit

T Kelvin = Tc + 273

Tk = Temperatur in Kelvin

Temperaturen

Normale Temperaturen in Kelvin und deren Umrechnung in Celsius und Fahrenheit

Kelvin (K)	Celsius (°C)	Fahrenheit (°F)
0	- 273	- 459
17	- 256	- 429
33	- 240	- 400
49	- 224	- 371
65	- 208	- 342
81	- 192	- 314
97	- 176	- 285
113	- 160	- 256
129	- 144	- 227
145	- 128	- 198
161	- 112	- 170
177	- 96	- 141
193	- 80	- 112
209	- 64	- 83
225	- 48	- 54
241	- 32	- 26
257	- 16	- 3

Kelvin (K)	Celsius (°C)	Fahrenheit (°F)
273	0	32
289	16	61
305	32	90
321	48	118
337	64	147
353	80	176
369	96	205
385	112	234
401	128	262
417	144	291
433	160	320
449	176	349
465	192	378
481	208	406
497	224	435
513	240	464
529	256	493

Abmessungen für Anschlüsse

Abmessungen der normalerweise im Katalog verwendeten Anschlüsse und deren Umrechnung in mm

Zoll	mm
3/64 (,0469)	1,19
1/16 (,0625)	1,59
5/64 (,0781)	1,98
3/32 (,0937)	2,38
1/8 (,1250)	3,18
5/32 (,1562)	3,97
11/64 (,1719)	4,37
3/16 (,1875)	4,76
7/32 (,2187)	5,55
1/4 (,2500)	6,35
9/32 (,2812)	7,14
5/16 (,3125)	7,94

Zoll	mm
7/17 (,4375)	11,11
1/2 (,5000)	12,70
5/8 (,6250)	15,88
11/16 (,6875)	17,46
3/4 (,7500)	19,05
1 (1,000)	25,40
1 1/8 (1,250)	28,58
1 1/4 (1,2500)	31,75
1 1/2 (1,5000)	38,10
1 3/4 (1,7500)	44,45
2 (2,0000)	50,80
3 (3,0000)	76,20

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Änderungen vorbehalten.